An Agenda for Excellence:

Creating Flexibility in Tenure-Track Faculty Careers

ACE

American Council on Education

Office of Women in Higher Education

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Creating Flexibility in Tenure-Track Faculty Careers

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Foreword

The American Council on Education, with generous support from the Alfred P. Sloan Foundation, has partnered with the National Panel of Presidents and Chancellors from 10 major research universities to raise awareness and spark national dialogue on the need for creating flexibility in tenure-track faculty career paths. Such flexibility is central to recruiting and retaining the most talented scholars in the professoriate in order to maintain excellence in teaching and innovative research, critical to U.S. competitiveness.

This report, *An Agenda for Excellence: Creating Flexibility in Tenure-Track Faculty Careers*, presents data about the career environment for and experiences of tenured and tenure-track faculty. The report confirms the compelling need for change in the current rigid structure of the traditional academic career path. In order for American higher education to sustain its leading role in a diverse and changing environment, college and university leaders must demonstrate their commitment to creating flexibility in the tenure-track professoriate by taking action on the numerous recommendations that are offered in this report.

This project is another example of ACE's commitment to its strategic priority of leadership development on our nation's campuses. I feel confident that these recommendations will assist you in strengthening your own institution and higher education in general.

Sincerely,

David Ward
President, American Council on Education

Members of the Advisory Committee

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Special Thanks

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Executive Summary

The critical work-life dilemmas detailed in this report indicate an urgent need for higher education leaders to examine and proactively address the institutional climate that governs the entire career cycle of faculty–from entry into tenure-track positions to retirement. As they shape long-term fiscal and strategic plans for their institutions, college and university leaders need to evaluate and act on all aspects of faculty career cycles. They need to do so to attract and retain those who are most talented in order to maintain excellence in teaching and cutting-edge, innovative research and to provide incentives for older faculty to retire with satisfaction, and financial security, thereby accommodating the next generation of scholars and teachers. Central to meeting this challenge is finding ways to create more flexible career paths for the tenure-track professoriate to enter, thrive in, and retire from academia.

An increasing number of new PhDs leave academia or opt for careers outside the traditional tenure-track path.[1] Many are forced to do so because of the tightening academic job market in a wide range of disciplines. Others, especially women, find themselves in adjunct and non–tenure-track positions–despite low pay, minimal or no benefits, and lack of potential job security–for a better balance between personal/family life and professional life.[2] Such positions provide them the time and flexibility they seek to place family as their priority at particular stages of their lives and careers. Faculty with unusual caregiving responsibilities

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(e.g., multiple births, a dependent with a physical or mental disability, or terminally ill dependents) are often forced to choose non–tenure-track career paths to manage work and life demands better.

Besides faculty work-life issues, U.S. research universities have an added dilemma: They need to be concerned with maintaining competitiveness in the global higher education market and the security of the country. As national security issues heighten and the number of international scientists who study and work in the United States decreases, this country will increasingly depend on the capacity of U.S. research universities to continue to produce American scientists and engineers who engage in innovative research that will transfer into cutting-edge discoveries and developments for citizens' financial, physical, and environmental well-being. Career flexibility for tenure-track faculty is key to attracting and retaining this scientific workforce in academia.

Without a doubt, academics in non–tenure-track positions encounter a unique set of challenges in their roles. However, this report and related project* focus solely on issues and challenges that current tenure-track and tenured faculty experience, with a special focus on research universities.

WHY PRESIDENTS AND CHANCELLORS MUST ACT

Institutional leaders must act immediately to attract the best faculty to the tenure-track professoriate at research universities. As student enrollments of women and people of color continue to grow—both at the undergraduate and graduate levels—these demographic groups will represent a substantial proportion of the pipeline to the professoriate. However, current data show that women tend to be less likely to pursue tenure-track faculty positions at research universities after earning doctorates, and anecdotal evidence suggests the same is true for PhDs of color.

In certain disciplines, namely science and technology, U.S. higher education cannot afford to lose any of its potential intellectual workforce and desperately needs the best talent in research and teaching. Talented scholars are necessary for innovative research and development to contribute to economic development of the country and to keep U.S. higher education in a competitive position worldwide, as well as for the country's security. With the time and financial investment that individuals and institutions make in becoming or producing scientific and technological researchers, it is critical for institutional leaders to devise strategies for attracting them into and retaining them in academia. As the United States continues to lose its science and technology workforce because of retirements and decreasing numbers of foreign scholars, the country needs to increase the number of homegrown science and technology researchers now more than ever.

There is a growing need for higher education faculty to reflect the diverse demographics of students and increasing pressure to nurture and develop more of our science and technology intellectual workforce from the American citizenry. Given these conditions, this report offers findings from the research on tenure-track faculty careers. These findings all point to the vulnerabilities of the tenure-track academic profession, particularly at research universities, if action is not taken immediately.

WHAT PRESIDENTS AND CHANCELLORS NEED TO DO

The National Panel of Presidents and Chancellors, a group of 10 chief executive officers from major research universities and state university systems, advocates creating flexible tenure-track faculty career paths at higher education institutions nationwide. The Panel strongly recommends changing the current rigid structure of traditional tenure-track faculty career paths. It also suggests new models to assist campuses in thinking more strategically about effecting beneficial change in faculty career cycles. For institutions that continuously strive to improve their teaching and research, maintaining a first-rate tenured and tenure-track faculty is a top strategic priority. To be effective in a diverse and changing environment, institutional leaders must demonstrate their

commitment to this effort by documenting it in their institution's strategic plan and pledging the required financial resources to take actions on at least two fronts:

1. Create hospitable environments that welcome and support a diverse faculty in meeting changing needs throughout their careers.

2. Develop policies and programs that encourage flexible career paths to help faculty members balance work-life issues, avoid stagnation and burnout, and remain productive in various facets of scholarship throughout the course of their career lifetime so that faculty can contribute to maintaining excellence in teaching, innovative research, and U.S. competitiveness in the global marketplace. Such developments of new knowledge and technology, in particular, are critical to the national economy and security of this country.

Creating an institutional environment that values the recruitment and retention of an excellent and diverse faculty– especially in this time of an increased number and diversity of student enrollments and decreased state budgets– requires strong leadership and commitment from an institution's chief executive officer and its entire academic administrative team. Such leadership must be proactive and must have the long-range view of maintaining and enhancing excellence, especially within a research university.

Campus climate is shaped by all of its various constituents, but change in campus climate must start at the top. Thus, the recommendations listed in this report must be implemented with leadership and input from all parties and at varying levels, beginning with presidents and chancellors and involving provosts and chief academic officers, deans, department chairs, and faculty in a campus-wide dialogue to determine the best approaches for tackling these issues on their respective campuses. For some institutions, it might be appropriate to establish these policies university-wide; other institutions will choose to institute policies at the school or unit level, perhaps by distributing grants to deans or department chairs and giving them the autonomy to achieve agreed-upon goals. Whatever the approach taken, resources must be accessible for this endeavor, all institutional leaders must be held accountable for progress toward set goals, and the practices and processes implemented must be transparent in every way. The recommendations listed throughout this report are provided to help institutional leaders develop collegial, supportive campus climates that will enhance recruitment, retention, and retirement of its faculty. All these recommendations have the potential to lead to greater flexibility in tenure-track faculty career paths.

Shaping the Professoriate of the 21st Century

INTRODUCTION

*I*n a faculty survey collected by the National Center for Education Statistics in 1998, more than half of 23,000 full-time instructional faculty members between the ages of 65 and 70 reported that they planned to retire within the next three years.[3] This turn-over has already begun a generational wave of faculty hiring that offers American higher education an unusual opportunity to develop an effective long-term strategy to improve its quality and competitiveness. For this to happen, higher education leaders must enlarge their thinking about the "appropriate" progress of an academic career.

To help develop such a strategy, the American Council on Education is leading the project titled *Creating Options: Models for Flexible Tenure-Track Faculty Career Pathways*, funded by the Alfred P. Sloan Foundation, in collaboration with a National Panel of Presidents and Chancellors and a national group of higher education scholars who serve as the project's advisory committee. The goal of this project is to encourage the develop-ment of flexible tenure-track faculty career paths that recognize different stages in faculty members' professional lives and acknowledge that not all faculty members will reach traditional career

The goal of this project is to encourage the development of flexible tenure-track faculty career paths that recognize different stages in faculty members' professional lives and acknowledge that not all faculty members will reach traditional career milestones at similar intervals.

milestones at similar intervals. This report serves as the primary channel through which the major objectives of the project are to be announced. These objectives include:

1. Raising awareness of faculty work-life issues throughout higher education.
2. Sparking a national dialogue to encourage change.
3. Generating thoughtful, tested approaches to assist campuses in adapting promising practices to address faculty work-life issues.

Table 1. Percentage of Full-Time Faculty in Engineering, Mathematics, and Physical Sciences at U.S. Degree-Granting Institutions, by Gender and Race/Ethnicity: 1999

	Engineering	Mathematics	Physical Sciences
Gender			
Male	90.0	74.0	84.0
Female	10.0	26.0	16.0
Race/Ethnicity			
White	78.3	79.6	88.0
Black	2.2	4.9	3.1
Asian	15.2	9.5	6.5
American Indian	0.3	#	#
Pacific Islander	0.2	0.6	0.1
Hispanic	3.3	5.3	2.0
Mixed Race	0.6	0.1	0.2

Rounds to zero.
Source: National Center for Education Statistics, National Survey of Postsecondary Faculty (NSOPF), 1999.

Special attention must be given to recruiting and retaining faculty in the physical sciences, engineering, and mathematics fields, in which women and people of color are especially under-represented (*see Table 1*).

WHY NEW PRACTICES ARE NEEDED NOW

Several contextual circumstances call for immediate strategic action so that American higher education can continu-ously improve and compete in the future. These related conditions revolve around three themes:

1. Ensuring diversity and equity in the professoriate with a particular focus on recruitment or re-entry into the profession, and the issues and challenges of junior faculty in tenure-track faculty positions.

2. Enhancing the excellence of the academic profession with a particular focus on issues and challenges for mid-career and senior tenure-track faculty members and faculty retirements.

3. Strengthening the quality and competitiveness of U.S. higher education as a whole, with a focus on creative approaches to develop-ing the scientific workforce and cutting-edge research and technological developments.

Colleges and universities will be most effective in the recruitment, retention, and timely retirement of an excellent faculty if they address the extra-scholarly stresses, strains, and competitiveness of the profession identified in this report. Moreover, institutions urgently need to provide opportunity for greater harmony between the personal lives and the academic careers of faculty members. If presidents, chancellors, and chief academic officers address these challenges, their institutions will be able to:

- Recruit and retain the best faculty, thereby maintaining excellence in research and teaching.
- Enhance the culture of the academy to keep pace with societal changes, particularly with respect to demo-graphic, cultural, and ethnic shifts.
- Achieve gender, racial, and ethnic equity among faculty, which is cru-cial given the increasingly diverse student body.
- Continue to contribute to the nation's competitiveness and national security.

Ensuring Diversity and Equity in the Professoriate

The student population in higher education is increasingly diverse. In fall 2001, 56 percent of all undergraduate, graduate, and professional students enrolled in U.S. degree-granting colleges and universities were women and 29 percent were students of color (African Americans, 12 percent; Asians, 6 percent; Hispanics, 10 percent; and American Indians, 1 percent).[4] The representation of women and persons of color in the full-time tenure-track and tenured faculty ranks has not kept pace, at 34 percent and 14 percent, respectively, with this rapidly diversified student body. This imbalance can lead to a less than optimal learning environment.

One study found that, in the case of women students, the "most accurate predictor of subsequent success for female undergraduates is the percentage of women among faculty members" at the institution.[5] Similar findings have emerged from studies of students of color.[6] To better the chances of success for such students, greater numbers of women and persons of color are needed in secure tenure-track and tenured faculty positions.

Faculty career researchers Cathy Trower and Richard Chait cite the "unaccommodating culture" of academia as one of the biggest obstacles to achieving diversity and equity among faculty members. They further state:

> [D]espite earning doctorates in ever-increasing numbers, many women and persons of color are eschewing academic careers altogether or exiting the academy prior to the tenure decision because both groups experience social isolation, a chilly environment, bias, and hostility. Their common concerns include their limited opportunities to participate in departmental and institutional decision-making; excessive and "token" committee assignments; infrequent occasions to assume leadership positions or achieve an institutional presence; research that's trivialized and discounted; lack of mentors; and little guidance about the academic workplace or the tenure process. As a result, women doctoral students are less likely than men to want to be faculty members, and persons of color are less likely than whites to desire an academic career. Not surprisingly, both groups are less satisfied in the academic workplace than white males. More women and minorities than white men leave the academy in the course of the typically seven-year probationary period.[7]

Issues and Challenges of Recruitment into Tenure-Track Faculty Positions

Not only are women now earning the majority of undergraduate degrees, but also their enrollments at the graduate and professional levels are steadily increasing. In fact, women now earn 51 percent of all doctorates awarded to U.S. citizens from American institutions.[8] Although their representation in some fields is still very low, women should, theoretically, comprise the larger part of the academic career pipeline in the near future. Thus, it is especially critical for institutional leaders to examine and eliminate the root causes of women PhDs opting out of tenure-track faculty positions.

University of California, Berkeley researchers refer to the phenomenon as the "leaking pipeline for women PhDs" (*see Figure 1*), in which women enter and complete doctoral programs but disproportionately drop out of the running for tenure-track positions. There is no

Figure 1. Leaks in the Pipeline to Tenure*

Receiving the PhD

Entering a Tenure-Track Position

Achieving Tenure

Postdoc Years

Women PhDs Water Level

Women PhDs Water Level

Married women with a child under six are 50 percent less likely to enter a tenure-track position than married men with a child under six.

Women are 20 percent less likely to achieve tenure than men.

Source: University of California, Berkeley.

evidence to show that the leaking pipeline affects men the same way. Feminist legal scholar Joan Williams posits one explanation for women leaking out of the pipeline. According to her, the current "ideal worker" model of tenure-track faculty–that is, the traditional career pathway based on the careers of white male academics–does not fit many women with spouses and children. The rigid structure of the academic career path, particularly at research universities, forces many women to self-select out.[9] This phenomenon extends beyond the stages of recruitment into the tenure-track professoriate; it persists throughout the lifecycle of the academic career. Researchers at the University of California, Berkeley found that, "At nearly every stage of an academic career–from securing a tenure-track position to achieving associate and full-professor status–married women (both with and without young children) leak out of the academic pipeline at a disproportionately high rate." After receiving their doctorates, married women with children under the age of six are 50 percent less likely than married men with children under six to enter tenure-track positions. Women who do enter tenure-track positions are 20 percent less likely than their male colleagues to achieve tenure.[10]

With steady changes in the social environment that are leading men to manage domestic duties more often, including caregiving, some of these concerns about losing women from the academic career pipeline may soon become true for men as well.

*Results are based on discrete-time event history analysis of the Survey of Doctorate Recipients (a national biennial longitudinal data set funded by the National Science Foundation and others, 1979 to 1995) in the sciences, social sciences, and humanities. The analysis takes into account broad disciplinary differences, age, ethnicity, PhD calendar year, time-to-PhD degree, and National Research Council academic reputation rankings of PhD program effects. For each event (PhD to tenure-track job procurement, or tenure-track job to tenure), data are limited to a maximum of 16 years. The waterline is an artistic rendering of the statistical effects of family and gender. Note: The use of NSF data does not imply endorsement of research methods or conclusions contained in this report.

Issues and Challenges with Re-entry into Tenure-Track Faculty Positions

Many holders of doctorates also encounter difficulties in re-entering tenure-track positions after stopping out of the professoriate–whether for alternative career explorations or full-time child-rearing. At present, the latter considera-tion is particularly germane to women, and both scenarios frequently result in the permanent loss of talented scholars who have the potential to contribute signifi-cantly to teaching and research if given the opportunity to return to tenure-track or tenured positions.

The underlying reason for the difficulty in re-entering the academic profession in a tenure-track position is academia's traditional expectation of a linear career trajectory. Joan Williams argues the unfairness of this expectation for academic women who are also the primary caregivers of small children:

> Some search committees require candidates hired right out of graduate school to have a [number] of published articles. For tenure, they expect the rate of publication to speed up, as a signal that the candidate's career is picking up steam. Given that the average age for granting of a PhD is 33, this means that the rate of publication is expected to speed up during the years when [childbearing and childrearing] responsibilities are heaviest. Since American women continue to do the majority of the childcare and housework, this expectation too has a disproportionately negative impact on women.[11]

Some may argue that forgoing a career as a tenure-track faculty member is simply one of the consequences that an individual must face for the choices he or she makes. But in order for higher education leaders to plan appropriately for the future of their colleges and universities, they need to begin to question status quo practices and perspectives and find ways to welcome and accommodate future faculty members. Social institutions such as colleges and universities have a deep responsibility to take account of and act on cultural shifts when those shifts impact the greater good of the institutions and the society they serve.

Given that ensuring diversity and equity in the tenure-track professoriate is one of the outcomes of creating flexible tenure-track faculty career pathways, the National Panel recommends that institu-tional leaders rethink recruitment into tenure-track faculty positions to include re-entry opportunities. Such options, either through postdoctoral positions or directly into tenure-track positions with guidance from senior colleagues would benefit individuals who have made deci-sions to stop out of academia or pursue non–tenure-track academic positions to manage career and family responsibilities better.

Issues and Challenges for Junior Faculty in Tenure-Track Positions

Many leading institutions have implemented policies and programs to aid faculty in managing work-life conflicts. In theory, such policies and programs are designed to solve the work-life dilemmas that many faculty members encounter. In practice, faculty members either do not know about these policies[12] or, in most cases, do not take advantage of them because they want to avoid potential or perceived discrimination in future tenure and promotion decisions.[13]

Because of the competitive nature of the academic profession, many tenure-track faculty members experience stress and anxiety over the ambiguity of promotion and tenure criteria and review. While this ambiguity affects all tenure-track professors–males, females, whites, and persons of color alike–women and faculty members of color report experiences of stress and anxiety at a greater rate. Interestingly, there is a strong negative correlation between the reported rates of stress and anxiety and their likelihood of achieving tenure–that is, the more stress and anxiety faculty members have, the less likely they are to achieve tenure.[14] Studies show negative climate issues, lack of appropriate mentoring, and a host of marginalizing experiences all contribute to the higher rates of stress and anxiety reported by women and people of color.[15]

As tenure-track faculty members at research universities deal with the stresses of preparing for their tenure review, they simultaneously find it challenging to achieve satisfaction with their quality of life. One major obstacle they face is the severe lack of appropriate time for the scholarly work expected of them. On average, faculty members at research universities spend about 57 hours a week working on professional duties.[16] Faculty who are also parents contend with the balancing act of fulfilling their teaching, research, and service responsibilities while bearing and rearing children. On top of the typically long workweek, faculty members who care for children (or dependent elders) spend an additional 32 (men) to 50 hours (women) each week on housework and caregiving responsibilities.[17] High-quality childcare at or near the worksite could mitigate some of these tensions. However, childcare available during regular work hours (i.e., Monday through Friday, 6 a.m. to 6 p.m.) would still be insufficient to address the needs of most full-time tenured and tenure-track faculty with children. Faculty members frequently are required to spend time on professional duties late at night and on the weekends; additionally, some degree of travel is required for professional development at national and international disciplinary conferences. Far too frequently, women are unable to fulfill evening and weekend duties or attend professional conferences because of the conflict of caring for children and other dependents and the lack of sufficient help to free up some of their time for these professional duties.

Women are not only more likely to carry a heavier load for family and household duties than men, but also more in demand for less-rewarded professional activities. Data from one research university indicate women assistant professors spent a significantly higher percentage of their time per week than men on internal university service activities, as well as on conferring and consulting with students who were neither in their classes nor their advisees.[18] The amount of time spent on these duties is not highly rewarded by research universities and places women at a career disadvantage for achieving tenure and promotion because it detracts from the time they could spend on more rewarded activities.

Career socialization is the process through which individuals acquire the values, norms, and behaviors that enable them to play the various social roles expected by their organization.[19] It is most intense when new recruits enter the profession.[20] Mentors are crucial to facilitating this socialization. In the initial stages of an academic's career and throughout various phases of the socialization process, tenure-track faculty members in particular say that they want and need mentoring, yet studies show that at most institutions, faculty mentoring is haphazard, often uninitiated or unsatisfying if initiated.[21]

Another socialization issue, which affects male and female assistant professors and particularly assistant professors of color, is the growing need to assert and maintain individual identities and values as they are being socialized into the profession.[22] As the new generation of

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the professoriate becomes more diverse by gender and race, junior faculty members increasingly feel the need for a bidirectional socialization process, in which their values and beliefs help shape the culture of the academic department and the institution as their senior colleagues help the newcomers acclimate to the profession. For instance, one assistant professor shared her feeling of constantly having to accommodate a particular male senior colleague:

> As long as I remain here, I feel I will never be able to establish my own identity. He [the senior colleague] makes me feel like a glorified graduate student, and it is very hard on my self-esteem … but I cannot afford to have him as my enemy at tenure time. I have to live with this situation.[23]

Even as the institutional culture changes with the behaviors of new junior faculty, some of them, like the woman quoted above, feel a need to challenge the status quo and academic culture (i.e., behavior of their senior colleagues) without threatening their tenure aspirations. Additionally, junior faculty members seek a sense of collegiality, equity, and support from their senior colleagues, the academic department, and the institution. Further, they are looking for professional development, networking, and mentoring opportunities that will guide and direct their career paths,[24] not a climate and culture that is deprecating.

[Faculty] are looking for professional development, networking, and mentoring opportunities that will guide and direct their career paths, not a climate and culture that is deprecating.

After three to four years in the position, tenure-track faculty members become more confident of their skills and more politically sophisticated about how to get things done at their institutions. But at this point, both male and female assistant professors begin to experience anxiety from their upcoming tenure review. Having clear tenure policies and practices, as well as unambiguous expectations for teaching, research, and service, helps alleviate this apprehension and stress.

In order for faculty members to thrive and ascend the academic ladder, they need to find satisfaction with their work and their work environment. Studies have found that women faculty and faculty of color are significantly less satisfied than white male faculty members on numerous measures of work-life and career satisfaction.[25] In fact, one study of tenure-track professors at six research universities found that women were more likely to report a lack of support for professional development, a perceived lack of fit in their departments, poor mentoring, less than adequate professional interactions with colleagues, and difficulty balancing personal and work responsibilities, all of which leave women far less satisfied than men in the academic workplace.[26]

The National Panel recommends that colleges and universities implement specific policies and programs designed to address issues for recruitment and re-entry into the professoriate, as well as concerns of junior faculty members regarding career and workplace satisfaction. Among these issues are sufficient time to devote to research; mentorship, guidance, and direction from senior colleagues about achieving tenure; the proper balance of work-life issues; and the appropriate relationship between junior faculty members' core values and beliefs, on the one hand, and the need to effect their socialization within the department and the institution, on the other hand.

To enhance recruitment efforts and establish re-entry options into the professoriate, the National Panel recommends that presidents and chancellors:

- Uncover and eliminate the preventable causes of talented PhDs opting out of tenure-track faculty positions.
- Create re-entry opportunities (e.g., postdoctoral fellowships) for PhDs who seek tenure-track faculty careers later in life after having decided to stop out of academia or work part time in order to manage career and family responsibilities.
- Abolish penalties in the hiring process for documented dependent care–related résumé gaps.
- Provide assistance to new faculty hires with spousal/partner employment needs and other family-related relocation issues.
- Allow couples employed by the same institution to select from a cafeteria-style health-care and dependent-care benefits plan (e.g., the family might be covered under the wife's plan for health care and the husband might use his health-care allotment toward the cost of dependent care).

To improve the success rates and career satisfaction of junior faculty members, the National Panel recommends that presidents and chancellors:

- Assess the degree to which campus environments are amenable to and supportive of the achievements of junior faculty and, in conjunction with faculty governing bodies, change the issues that emerge as problems.
- Create a professional climate in which the use of family-friendly and work-life policies is encouraged, not penalized.
- Create incentives for developing more collegial environments, in which faculty members at all ranks are encouraged and rewarded for collaborating with, guiding, and mentoring their colleagues.
- Provide training to evaluators to put in place clear and consistently applied promotion and tenure guidelines that are (and are seen as) fair, non-discriminatory, and consonant with alternative career path policies that the institution has adopted.
- Allow colleges, schools, and departments within a university to establish their own agreed-upon guidelines for interpreting criteria for promotion and tenure, taking into account heavy teaching loads, professional service activities, student advising, and the four distinct functions of scholarship, as outlined by Ernest Boyer in *Scholarship Reconsidered: Priorities of the Professoriate* (see p. 11 of this report).
- Develop opportunities throughout the career cycle for tenure-track faculty members to opt for part-time positions that can be used for a specified period (up to five years) as personal needs arise.

- Establish guidelines for faculty to have the option of multiple-year leaves for personal or professional reasons.
- Create flexibility in the probationary period for tenure review without altering the standards or criteria. Longer probationary periods should not be required for all faculty, but flexible time frames of up to 10 years with reviews at set intervals should be offered. This option could benefit faculty who may need to be compensated for lost time or given additional time to prepare because of unanticipated professional or personal circumstances.
- Provide quality, affordable childcare (or information about available services) to tenured and tenure-track faculty, particularly new hires; establish or provide information for childcare programs for emergency back up, evening and overnight care, and school and summer breaks.

Enhancing the Excellence of the Academic Profession and Higher Education

Today in American higher education, the student body is likely more diverse by age, gender, race/ethnicity, socioeconomic status, academic and social preparation, and physical and mental capabilities than it has ever been. However, the culture of academia, particularly at research universities, remains far too restrictive in adequately rewarding faculty members' creativity in responding to this ever-increasing diversity, especially through their teaching and service.

In the late 1980s and throughout the 1990s, institutional leaders nationwide fervently encouraged faculty to respond to the challenges of connecting scholarly work with social and environmental needs through their teaching and service. Although this had been a part of the mission of state and land-grant institutions since their founding, other public and private colleges and universities adopted the practice as well. However, with the continuous turnover of institutional leaders, rewarding scholars for their creative teaching and application of their research and knowledge to the needs of society has not been given sufficient attention.

To enhance the role of higher education in society, and the role that faculty play in fulfilling their respective institutional missions, it is critical for faculty to commit their time to all their professional responsibilities–research, teaching, and professional service (internal and external to the institution) and for their achievements in all areas to be rewarded. In order to provide faculty appropriate time to commit to these three professional responsibilities, the National Panel strongly encourages institutional leaders to take a more targeted approach on two actions:

- Broadening the definition of scholarship and the structure for assessing and rewarding faculty achievements in all facets of the new paradigm of scholarship.
- Creating, implementing, and promoting the use of policies and programs that continue to promote faculty productivity, revitalization, and professional renewal throughout the course of their career lifecycle, particularly from mid-career and beyond.

These two actions are necessary imperatives for enhancing the excellence, already a major characteristic, of the academic profession.

Broadening the Definition of Scholarship

With respect to expanding the definition of scholarship and its various components that merit reward, the National Panel acknowledges the groundbreaking report published in 1990 by the late Ernest Boyer, *Scholarship Reconsidered: Priorities of the Professoriate*. In this report, Boyer advocated a new paradigm of scholarship that embraces creativity and diversity in the roles and responsibilities that academics maintain, and in the reward structure that compensates faculty for their achievements in four specific functions of scholarship:

- The scholarship of discovery, or what academics typically call *research*.
- The scholarship of integration, or conducting and interpreting one's research in an interdisciplinary context.
- The scholarship of application, or providing a service to the community or society by applying one's knowledge to consequential problems.
- The scholarship of teaching, or the practice of educating and enticing future scholars.[27]

In Boyer's new approach to scholarship, faculty members would have seasons of three to five years throughout their career lifecycles in which they define their professional goals and focus narrowly on one of the four areas of scholarship. Although he fully agreed that research (the scholarship of discovery) should remain the basic expectation and key criterion for assessing faculty performance at research universities, Boyer also strongly advocated for justly rewarding integration, application, and good teaching.

A companion piece to Boyer's classic is *Scholarship Assessed: An Evaluation of the Professoriate* by Glassick, Huber, and Maeroff, which builds on Boyer's foundation. It provides guidelines for helping colleges and universities design the scholarship of faculty on their

> The National Panel fully understands that excellence in performance and high standards in assessment of faculty are important to support the high quality of our institutions and contribute to the continual improvement of our economy and our society.

campuses—in all four functions—and prepare their faculty for having their portfolios evaluated. The National Panel acknowledges this influential work as well, and recommends that institutional leaders continue to revisit both of these classic documents. The National Panel fully understands that excellence in performance and high standards in assessment of faculty are important to support the high quality of our institutions and contribute to the continual improvement of our economy and our society. However, Boyer's redefinitions remain apropos for leading campus dialogue on the changing roles and responsibilities of academics, aligning the reward structure accordingly, and leading such reforms for tenured and tenure-track faculty.

Creating Policies and Programs that Promote Faculty Productivity, Revitalization, and Professional Renewal

Beyond redefining the roles, responsibilities, and rewards of the professoriate, in *Scholarship Reconsidered*, Boyer further advocated for "creating flexible and varied career paths for professors."[28] His rationale was to prevent professional burnout and stagnation. Most policies and programs that have been created and implemented by colleges and universities to provide career flexibility among faculty primarily have been established to benefit junior faculty members with children. However, institutional leaders need to examine the entire faculty career cycle and address the challenges that face not only junior, but also mid-career and senior faculty members. As Boyer indicated, professional development issues persist throughout all stages or seasons of the academic career.

Challenges for Associate Professors

Although newly tenured faculty members usually enjoy the peer recognition associated with having achieved tenure and are generally satisfied with their career progress, numerous institutional studies have found the associate professor rank to be difficult for many academics, especially those who have been in the rank for a long time.[29] For instance, in one study of tenure-track faculty at Ohio State University, researchers found that both men and women at the associate professor rank reported a greater level of stress than faculty members in other ranks. Those who had been in the associate rank for 15 years or more were more dissatisfied with their positions and felt less valued and respected than associate professors with fewer years of service.[30]

While associate professors usually become an integral part of their institutions and are actively involved in college activities and major committees, some fear their academic careers have hit a plateau with little room left to advance professionally. Others experience insecurities about their knowledge base becoming outdated–especially in understanding and applying technology to their work. Some also identify a need for continuous professional development, leadership opportunities, and networking as a way to avoid stagnation. Such professional offerings for faculty are especially needed for associate professors to help them achieve promotion or at least provide them an alternative satisfying career path, which they might find as intellectually stimulating and invigorating as achieving full professorship.

Given the rigorous schedules and reported levels of stress and burnout of associate professors, it is not surprising that some contemplate leaving academia, even though they have tenure. In the 1999 National Survey of Postsecondary Faculty, more than 12 percent of tenured associate professors indicated that they were somewhat likely or very likely to leave academia within three years for a full-time, non-postsecondary position.[31] If not for the security of tenure, the attrition from this rank of the professoriate likely would be higher, judging by accounts of anxieties about sustaining professional interest and about being unable to take advantage of personal leaves, leading to stress and burnout.

Women associate professors are more likely than men in the same rank to experience dissatisfaction and stagnation. Although many long-term associate professors remain at this rank because they have not met institutional expectations, family and personal responsibilities, as well as excessive internal university service, top the list as reasons for faculty members' failure to move forward in a timely fashion, thus, disproportionately affecting women. Therefore, it is not surprising that more women than men fail to advance to full professorships. Institutional studies corroborate the finding that on the measure of integrating work and personal or family responsibilities, women associate professors are among the most dissatisfied.[32] Findings from the cited studies indicate to institutional leaders the need to be aware that some long-term associate professors with work-life conflicts could benefit from institutional support to regain their professional footing. Reducing the courseload of tenured women faculty and increasing their participation in campus governance by appointing them to important university-wide committees or commissions (particularly those which are not necessarily related to gender or racial/ethnic issues) is one example of how more senior women might find professional renewal and greater career satisfaction.

General Tenured Faculty Challenges

Data also show that tenured women are more likely than men to be place-bound and less mobile for professional advancements because of family constraints.[33] Consequently, while their male colleagues in the tenured ranks often receive salary increases because of counteroffers that institutions make to keep them, most women do not even pursue outside career offers because, in reality, they are unable to consider moving. Conventional wisdom suggests that this is another reason why women who are tenured—both at the associate and full professor ranks—are more dissatisfied with their careers than men.

In addition to the need for professional development among tenured faculty members, findings from several institutional studies show that women and people of color, even at the tenured ranks, report lower ratings than white males on institutional and departmental climate measures. Thus, unsupportive and marginalizing climates compound the mid-career stagnation problem for some women and people of color. These studies also show that tenured women and people of color give lower satisfaction ratings than their male and white counterparts (respectively) on measures of interactions and relationships with colleagues, dimensions of professional development, overall career experience, and integration of their academic and personal/family roles.[34] Because of these alienating experiences, women and people of color at the tenured ranks are still not fully integrated into the mainstream of the institution. Consequently, relatively few become department chairs or assume other university leadership positions.[35]

While institutions devote some attention to balancing career and family life for junior faculty, rarely is this conflict recognized as an obstacle for tenured professors. Both male and female tenured professors frequently need concentrated amounts of time guiding teenage children, supporting aging parents, or looking after their own health. In fact, both men and women in the Ohio State University study reported that they would value one academic quarter with a research focus and no teaching responsibilities, along with the technological resources to work from home. In the same study, women also said that they would highly value more support from their department chair with respect to work and personal responsibilities and part-time, post-tenure appointments as a means to better integrate work and family life.[36]

Interestingly, leaves, sabbaticals, and flexible work schedules are not always seen as the best solutions for mid-career professional renewal. Although tenured faculty members express a desire for such benefits, the reality is they frequently do not take advantage of them. In the Ohio State faculty study, nearly two-thirds of tenured professors who were eligible for professional leaves did not use them. The reasons cited by this cohort for rejecting these opportunities included loss of income, dependent-care responsibilities, spouse or partner employment conflicts, and disinclination to burden colleagues with additional work.[37]

These challenges for mid-career and senior faculty require policies and programs that emphasize professional development and revitalization, particularly at the associate professor rank, and an examination of the reasons why associate professors—both males and females—"get stuck" at this rank.[38] The National Panel strongly urges institutional leaders to evaluate career satisfaction of its mid-career and senior faculty regularly as a means of encouraging veteran academics to remain positive about their professional responsibilities, their potential for leadership, and their mentoring and socializing roles. In assessing tenured faculty members' satisfaction, institutional leaders need to be attentive to sources of stress and burnout and to be open to flexible policies and programs similar to those designed for tenure-track assistant professors. Institutional leaders also need to nurture senior faculty members' sense of satisfaction by keeping them involved, engaged, and publicly recognized for their scholarly, teaching, and service achievements within the institution and beyond, and to investigate the causes for gender and racial disparities among mid-career and senior faculty members and address them appropriately.

In order to address these issues of mid-career and senior faculty, the National Panel recommends that presidents and chancellors:

- Examine and proactively address the work-life issues and professional climate of faculty members throughout their entire career cycle.
- Create a professional climate in which the use of family-friendly and work-life policies is encouraged, not penalized.
- Allow academic units to determine how best to meet their productivity goals and objectives to help eliminate competition among colleagues in a given unit.
- Establish guidelines that allow faculty to have multiple-year leaves for personal or professional reasons.
- Develop and encourage leadership and professional renewal opportunities for tenured faculty.

Issues and Challenges with Retirement of Senior Faculty

In addition to the challenges that tenured faculty encounter, senior faculty also endure numerous challenges as they face their imminent retirements. The way academics end their careers–by leaving a legacy in their respective disciplines, departments, and institutions–contributes substantially to the excellence of the academic profession. Thus, it is critical to allow senior, retirement-age faculty to approach retirement with dignity, grace, and a continued sense of connectedness to the profession.

In 1994, the federal law banning age discrimination removed the age limit on mandatory retirement for faculty members, thus posing a major issue for senior faculty and for institutions. Because of this law, many higher education faculty members are working longer, leading to a skewed age structure in many departments and institutions.[39] For both men and women, aging generates complicated professional and personal issues revolving around anxiety that one's knowledge is out of date, one's scholarly legacy is endangered, one's own health (or the health of one's spouse or parents) is declining, one's energy and enthusiasm are reduced, or one's financial circumstances are not as robust as might have been hoped.[40]

Of all the challenges of senior faculty, retirement proves to be particularly intimidating. Moving into retirement is simply not an easy transition to make. For academics, whose careers have become so intricately entwined with their personal lives, suddenly severing all ties to one's life achievements is frequently daunting. Moreover, with the current low returns on pension plans and the high cost of health insurance, many academics have delayed retirement, often compromising an institution's capacity to replace them with new tenure-track assistant professors and limiting the hiring and advancement of junior faculty members. Senior professors may feel undervalued or intimidated if their institutions view them in this light.

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The National Panel urges institutions to adopt phased retirement plans under which full professors may continue teaching or conducting research, or both, part time, with appropriate incentives for professors to choose such an option. Even after professors retire, the Panel suggests that institutions continue to use the expertise of those willing to serve as special teachers, fund raisers, public lecturers, and student and faculty mentors. To encourage retirement of senior faculty, the National Panel recommends that presidents and chancellors:

- Provide phased retirement plans under which senior, retirement-age professors may continue teaching or conducting research, or both, part time for a limited number of years.
- Offer partial or full coverage for health insurance to faculty for a set number of years after retirement, or implement retirement health savings programs.
- Provide space on campus where faculty retirees can convene to share intellectual ideas, presentations, and so forth with one another and the campus community. Find appropriate ways to continue to engage retired faculty.

Improving the Quality and Competitiveness of U.S. Higher Education

Some university leaders may be concerned that changes in institutional culture that run counter to current recruitment and retention practices could threaten institutional excellence. But several leading institutions have already begun to address some of these work-life issues without sacrificing quality. In fact, many of the institutions would argue they have become more competitive in attracting high-quality faculty as a result of new practices. For example, a 1999 Massachusetts Institute of Technology (MIT) School of Science report found that women had been marginalized in the male-dominated culture of the institution: Women were paid less, received fewer resources, and were often treated as invisible.[41] The report had a wide impact and prompted similar studies at other research universities, particularly those with a strong emphasis on science and engineering. Since then, MIT has begun

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publishing regular reports on the status of its women faculty members and has made systemic progress through the appointment of more women to academic leadership positions, including the recent selection of its first woman president. More women are now on the faculty (in 2001, women represented 17 percent of the faculty, up from 11 percent in 1993); women have received salary increases; the institution has developed a more collegial environment and has set forth guidelines for diversifying hiring practices; and new family/work policies and programs have been implemented, such as stopping the tenure clock and making on-campus childcare available.[42]

By placing greater emphasis on recruiting and retaining women among its faculty and in leadership positions, MIT has enhanced its reputation. While it is still viewed as a research university committed to the advancement of knowledge in science and technology, MIT is no longer viewed exclusively as male-dominated.

In order for American institutions, particularly those that focus on developing the future workforce in science, technology, and engineering, to remain competitive in recruiting the most talented faculty in the United States and throughout the world, institutional leaders must think creatively about policies and programs that will attract and retain the best possible workforce. They must place a special focus on accommodating the growing numbers of women and people of color in the pipeline.

While U.S. higher education institutions, particularly research universities, have traditionally dominated the market in attracting distinguished international scholars and researchers, this trend has begun to change since September 11, 2001. For decades prior to 9/11, many international scholars were trained at U.S. institutions and remained in the country to assume faculty or research careers.

Others were recruited to the United States after being trained elsewhere. In a speech to the American Association for the Advancement of Science (AAAS) on this issue, Shirley Jackson, president of Rensselaer Polytechnic Institute, commented:

> In the past, we have imported the science, engineering, and technological expertise we needed. This has been, and continues to be, an important source of talent distributed across all sectors of our economy. But in an era of turbulent global relationships and security concerns at home, this is beginning to be more difficult. International students and scientists have begun to choose to return home in greater numbers—sometimes because of, sometimes irrespective of, global conflicts.[43]

In addition, a recent article in the *New York Times* reported that India and China, the two countries that send the largest numbers of international students to the United States for undergraduate and graduate study, have played a critical role in providing the workforce for American science, engineering, and information technology research.[44] However, in the aftermath of 9/11, with increased security delaying the processing of foreign students' visas and with a new Visa Mantis process—a system that conducts extra security checks on visa applicants who wish to study in some 200 scientific and technical fields related to national security—increasing numbers of Indian and Chinese students are seeking admission to universities in their home countries or elsewhere.[45] Meanwhile, other English-speaking countries are reaping the benefits of America's loss. In particular,

Australia, Britain, and Canada have been vigorously recruiting international students. One article reported that "data suggest that [these other countries] are succeeding in attracting students who in previous years might have gone to the United States."[46]

Because this practice of importing the science and technology workforce for both the academy and industry is currently being threatened and challenged, U.S. leaders in American higher education must think creatively and strategically about the development of this future labor force. One particular project–the National Science Foundation's ADVANCE program –stands out as a model of promising practice. The goal of the ADVANCE program

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is to increase the participation of women in the scientific and engineering workforce through the increased representation and advancement of women in academic science and engineering careers. Almost all of the universities awarded ADVANCE grants have added policies and programs to strengthen their family-friendly practices, as well as transformation initiatives that are more supportive of women's advancement in academic science and engineering fields.

Given the time and financial investment that individuals and institutions make in producing science and technology researchers, it is critical for institutional leaders to devise strategies for attracting them into and retaining them in academia. As the United States continues to lose the science and technology workforce that we are accustomed to importing from abroad, the country needs its homegrown science and technology researchers now more than ever before. The obstacles that faculty face in managing work and family responsibilities significantly reduce the talent pool available for this country's scientific workforce. Shirley Jackson said it well in her position paper on the "gap between the nation's growing need for scientists, engineers, and other technically skilled works, and its production of them." In her publication, *The Quiet Crisis: Falling Short in Producing American Scientific and Technical Talent*, she refers to this gap as having reached crisis proportion:

> [This] crisis … could jeopardize the nation's pre-eminence and well-being. The crisis has been mounting gradually, but inexorably, over several decades. If permitted to continue unmitigated, it could reverse the global leadership Americans currently enjoy…. The need to make the nation safer from emerging terrorist threats that endanger the nation's people, infrastructure, economy, health, and environment makes this gap all the more critical and the need for action all the more urgent.[47]

A recent *Chronicle of Higher Education* article interviewed a female chemist at the University of Oregon about the dearth of female PhDs seeking academic careers at elite research universities. She said, "Women just are not applying," and referred to the climate of top-notch science departments as having "toxic atmospheres." She further stated, "Women are scared away because they don't see how they can put together a life that satisfies their personal and professional goals…. They see that the best jobs are obtained by people who want to only do science and give it 100 percent."[48]

Because young scholars of today's generation are demonstrating greater concern with managing personal and professional life issues, higher education can capitalize on the needs and desires of these new recruits to the academy. Institutional leaders can do this by providing the kind of flexibility that current scholars seek in order to have both fulfilling careers and personal lives. Institutional leaders can use policies and programs that allow career flexibility as a tool to recruit scholars to and retain them in the academy–those from science and technology as well as all other fields.

While these efforts are just the beginning of initiatives needed to make cultural shifts to attract, accommodate, and retain a more diverse group of scholars, they illustrate strategies needed to attract and retain the best faculty, especially the growing numbers of women and people of color who are increasingly entering the academic career pipeline. Universities, such as the University of Michigan, Ohio State University, Pennsylvania State University, and the University of California, Berkeley, regularly assess the composition of the faculty by gender and race, some through cohort studies of their faculty. These institutions and others also have policies and programs in place to improve faculty satisfaction and productivity as well as to enhance the institution's competitive advantage in recruiting and retaining valued faculty members.

To lead on these issues—and to be effective—may cost money. The National Panel plans to investigate financial models for various scenarios of flexible faculty career pathways to share soon. But the key question for institutional leaders is, "Can we afford *not* to invest in the future of our institutions by *not* investing in our faculty?" By spending money to establish flexible faculty career pathways, institutional leaders are investing in a more

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diverse, more satisfied, and more productive faculty, especially among those who are hardest to attract and hold. Such an investment in tenure-track faculty members will bring a handsome return in terms of loyalty and productivity and will expand the pool of potential faculty members through supportive and friendly policies, programs, and environments. In this way, institutions will be better able to attract and keep the best talent available.

Reconceptualizing the Tenure-Track Faculty Career Path

VIGNETTES

The Chronicle of Higher Education is filled with first-person accounts from would-be, current, and in some cases, former academics, sharing their everyday work and life experiences and adversities in the professoriate. In the vignettes that follow, several first-person stories have been borrowed from the *Chronicle*, others are composed from stories told and heard on campuses across the country. These stories are shared here to demonstrate how tenure-track and tenured faculty might take alternative paths in their careers when they have access to flexible options through the implementation of policies and programs such as those listed as recommendations in this report.

Carolyn

For new PhDs who initially choose non-academic careers or who do not, at first, succeed in getting tenure-track positions, the National Panel suggests considering late entry or re-entry positions for those who want to consider a tenure-track faculty career later in life. For example, Carolyn, who recently received a doctorate in chemistry from an Ivy League university, was described by her graduate adviser as having what it takes to land a tenure-track position at a major research university. Instead, Carolyn has chosen to work at a two-year college in Maryland to pursue her love of teaching and spend more time with her family. Should Carolyn decide a few years down the line that she would like to pursue a tenure-track position at a major research university, re-entry options should be available to her to begin a line of research as an assistant professor with supervision from a senior

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colleague. Such opportunities could be set up in a similar manner to most post-doctoral positions with supervision and guidance from senior colleagues.

Jon

For tenure-track or tenured faculty members who have difficulty handling temporary dependent care, health, or other personal issues along with their professional responsibilities, the National Panel suggests considering, for those who seek them, temporary or permanent part-time positions that would not jeopardize their chances for future tenure or promotion. Jon, for instance, might be a candidate to take advantage of a temporary, part-time tenure-track position. Jon, a historian at a Midwestern research university, describes himself as a "part-time single parent" because his significant other works at another institution three hours from their home, to which she commutes on Tuesday mornings and returns on Thursday afternoons. While she's away, Jon handles the care of their two pre-school–age children. Should Jon

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and his partner find their professional schedules, care for the children, and the commute becoming increasingly unbearable, Jon might consider dropping to part time for a limited time period while remaining on tenure track, to give him needed time to focus on personal and professional priorities.

Max and Wanda

For faculty members who seek to take advantage of family-friendly institutional policies but are hesitant to do so for fear of later discrimination, the National Panel suggests that institutions make it a priority to redefine the model of the ideal worker, in terms of the characteristics appropriate for faculty members at 21st century colleges and universities. Then, women, persons of color, and those with dependent care responsibilities, health problems, or professional growth dilemmas will be in a position to succeed like all other academics. Such accommodations would produce a climate in which all faculty members would continue to be more productive, more loyal, and of greater service to their institutions and their profession.

In some cases, life's events prevent academics from being the ideal workers that they are expected or even want to be. In fact, Max, whose wife has breast cancer, recalled:

> I was an invited speaker at a California conference. I canceled. I had put together a panel for the major meeting in my field, the Organization of American Historians gathering in Memphis. The panel had been accepted. I bowed out. I was on the editorial board of a political-intellectual journal. I resigned. I had invited American scholars—eight of whom had accepted—to fly to Hungary to honor my graduate adviser in a symposium this summer partially sponsored by the Hungarian-American Fulbright Commission. I wrote to everyone, apologized, and canceled the whole thing.

In another case, Wanda was denied tenure after she took two maternity leaves while on the tenure track. The university's provost reportedly told faculty members that taking maternity leave would "prejudice the case for tenure," and criticized the faculty member for failing to teach classes while on maternity leave and for being unable to present a paper at a conference she could not attend because of medical complications during her pregnancy.

In the case of Wanda, she had legal recourse and decided to follow that path. However, in both of these cases, available institutional policies should have been in place to assist them in managing their personal life dilemmas or crises. The climate of their institutions and their colleagues should be supportive to the extent of helping them overcome these personal predicaments, not penalizing them professionally or forcing them to retaliate (as in the case of Wanda) because of what they have to endure personally.

Ellen

For faculty members who are seeking mentorship and guidance from senior colleagues or peers, the National Panel suggests considering it an institutional priority to establish a more collegial environment in which faculty members are rewarded, not just for their individual successes, but for collaborating, guiding,

> [I]nstitutional leaders also must play a role in creating more supportive and less competitive environments, by rewarding faculty collaboration, mentoring, and increased collegial interactions.

and mentoring their colleagues. Ellen, a psychologist, describes the typical situation:

> The new academic, looking to senior colleagues for information and advice, encouragement and feedback, is likely to come away disappointed. The overemphasis on individual achievement in a highly competitive environment makes scholars focus on their personal productivity. Getting your head out of your work long enough to notice the needs of others isn't typically high on an academic's priority list.

Ellen goes on to give numerous helpful tips for individuals to network and build relationships. However, institutional leaders also must play a role in creating more supportive and less competitive environments, by rewarding faculty collaboration, mentoring, and increased collegial interactions.

Samuel

For faculty members stressed by the multiple, competing demands to fulfill professional duties, or in need of downtime after completing a major research project, the National Panel suggests considering the organization of departmental units' work so that faculty members may focus on individual areas of interest (teaching, research, and professional service) while crediting the unit as a group for fulfilling departmental responsibilities. In the case of Samuel, a computer scientist at a northeastern research university, he needed his department to

[T]hese options create a new vision of the academy as a place where work and personal responsibilities co-exist in a healthy, productive balance.

pick up his teaching and advising responsibilities for an indefinite amount of time while he was on research leave so he could devote his attention to cutting-edge research and development that would ultimately benefit the university and the country's national security. To do this, the department chair needs to distribute Samuel's teaching and advising responsibilities among Sam's colleagues, and the colleagues need to willingly assume the extra responsibilities with the understanding that they too will be on the receiving end of such career flexibility in the future.

Paula

For mid-career or senior faculty members who are in need of refocusing their professional energies and efforts for serving the institution in a different capacity, the National Panel suggests providing options for them to consider new leadership opportunities, mentoring, and other professional development programs either within or outside the university. Having reached a point in her life in which she had an empty nest (both children had graduated from college and were living on their own), Paula was looking for new professional challenges. She was growing tired of her professional routine as a sociologist: teaching, grading papers, and conducting research, and wanted to explore administrative leadership opportunities. Her provost nominated her and she was accepted to pursue a yearlong fellowship with the American Council on Education Fellows Program to introduce her to the world of administrative leadership and alternative career opportunities.

Henry

For senior faculty members who are nearing retirement, the National Panel suggests implementing phased retirement incentives to allow senior retirement-age faculty to leave their careers comfortably and gracefully. With phased retirement, academics like Henry, a professor of history at a college in the Northeast, could ease into retirement instead of considering whether or not to retire.

Taken together, these options create a new vision of the academy as a place where work and personal responsibilities co-exist in a healthy, productive balance. The new academy then would be a place that nurtures all its constituencies, values all its individuals, and encourages all its members to flourish.

A NEW ACADEMY WITHIN REACH

Strategic planning with respect to the tenure-track faculty career cycle requires higher education leaders to reconceive the notion of the ideal worker in academia and to incorporate into that model those who are required by life's circumstances to pursue alternative, nontraditional career paths. Before implementing policies and programs that will help shape the new model of the ideal academic, the National Panel strongly recommends that institutional leaders conduct campus dialogues on these issues with all relevant parties involved in the discussions in order to determine the best approaches for their institutional culture.

In spite of the varied approaches to implementing these changes, there are some commonalities that exist. For instance, ideal workers in the academy of the future should be able to enter the tenure-track professoriate at any age. Faculty should have the flexibility to achieve tenure after the sixth year review of their tenure portfolios, or later if they take time off for paid or unpaid leave or because they temporarily work part time to accommodate work-life issues. In other words, the ideal worker should have the flexibility, without loss of quality in their overall productivity, to address work-life dilemmas for a period of time according to his or her personal and family demands if and when necessary.

Faculty also should have clear criteria regarding what is expected of them in teaching, research, and service to achieve tenure and promotion. They should be encouraged and provided time for professional activities they find most compatible with their talents, and those activities should be credited. They should be able to readily find colleagues in and out of the institution with whom they can work collaboratively, from whom they receive mentorship and career guidance, and in whom they can trust to develop and maintain respectful collegial relations and interactions.

Faculty should have professional opportunities to explore intellectual renewal when they are burned out in the classroom, need time away from the research lab, or need respite after having just completed a book. Those among the senior ranks should be willing to give guidance to junior faculty as they once received it (or should have received it) and they should be rewarded for doing so. Those facing the end of their careers should be able to phase into retirement by, for example, teaching an occasional course, completing a major research project or collaborating with another faculty member on a research project, advising students, helping the institution raise money, or giving public lectures for a special institutional events.

The National Panel is convinced that effective and strategic implementation of the policies, programs, and practices set forth in this report will ensure the preservation and nourishment of American colleges and universities' most valuable asset: faculties of bright, talented, committed, and diverse individuals, whose scholarship, research, and teaching will build on the excellence that is our institutions' hallmark and retain the nation's position as having the finest system of higher education in the world. It is this institutional commitment that will permit our nation to retain its position as a leader in global education, research innovation, and competitiveness worldwide.

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Appendix I: Promising Institutional Practices

Many colleges and universities nationwide have already begun to realize the benefits of addressing faculty work-life issues, gender and racial inequities, faculty productivity, revitalization, and retirement. Provided in this appendix are some promising practices identified on research university campuses to address these very issues. Effectiveness in implementation and use, as well as the comprehensiveness of the programs, varies from institution to institution. While the practices are listed in terms of the issues they address, institutions will find that concurrent implementation of several solutions to issues at the different stages of faculty careers will have a greater impact than just tweaking individual programs and policies. To address the cultural causes of the identified challenges, institutions and their leaders must think strategically, not piecemeal.

The "promising practices" are listed here not because all of them show evidence of having made a difference in the management of work and life for faculty members or in changing the culture of academia, but because they hold the promise of being able to do so. The National Panel recognizes that many other colleges and universities have taken steps to implement other policies and programs on their campuses to provide their faculty with the kind of flexibility that is encouraged in this report. The practices that are cited here are listed only to serve as examples.

PROMISING PRACTICES TO ADDRESS WORK-LIFE ISSUES

- *Paid leaves.* Faculty members should be offered paid leaves for pregnancy, family care, and emergencies, with the option of longer-term unpaid leaves depending on individual circumstances.
- *Active Service with Modified Duties.* Faculty members should have the option of a reduced workload, without loss of status, to handle family responsibilities.
- *Stopping the Tenure Clock.* Faculty members should have the option to extend the probationary period up to two years following the birth or adoption of a child. The option of stopping the tenure clock should be provided with or without a leave of absence. Tenure decisions should be made according to the same criteria (not higher expectations). The tenure clock should be stopped upon request and not be considered a matter for special negotiation.

PROMISING PRACTICES FOR CAREER SOCIALIZATION

The promising practices that campuses have initiated to alter faculty career socialization are more programmatic than policy-based. Some of the practices that campuses have adopted include the following:

- *New Faculty Orientation.* These programs can be effective when organized and facilitated as mandatory sessions for new faculty hires across schools and disciplines. Orientation programs enable new faculty to network and to identify supportive colleagues in their faculty cohort and are particularly helpful for women and persons of color who might be the sole woman or racial minority in their departments.

- *Mentorship and Faculty Support Networks.* Faculty mentoring and support networks help new faculty members gain greater confidence in their skills, become more politically sophisticated, and learn how their institutions work and how to get things done. The mentor role for senior faculty also allows them to become an integral part of the department/institution as they serve to socialize new faculty to the profession. Such initiatives enhance the satisfaction and success of all faculty members, but are especially helpful to women and persons of color.

- *Department Chair Training.* Training to enhance the effectiveness of the chair as an academic leader within the department and within the institution as a whole should include training to sensitize department chairs to race and gender differences in values, behaviors, and interests and to encourage department chairs to appreciate the different strengths each faculty member brings to teaching, research, and institutional service.

- *Departmental Handbook.* This document should be updated regularly to communicate clearly to faculty expectations for research, teaching, and service. Tenure decisions should be based upon established criteria.

- *Commissions or Committees on the Status of Women and/or Minorities.* Such official groups are typically staffed by deans of schools or colleges or other senior faculty members and administrators who report to the provost or chief academic officer. The major charge of these groups is generally to assess regularly the status of faculty through surveys and interviews analyzed by gender and race, and report their findings to the executive team of the university. Many universities distribute this information to the wider community for public scrutiny. Such groups often have the stated objectives of increasing the representation and advancement of women and faculty of color in tenure-line academic and of encouraging the equitable participation of all faculty ranks in leadership positions.

PROMISING PRACTICES FOR ENHANCING FACULTY PRODUCTIVITY

Because research universities reward productivity in research and publications, promising practices for enhancing faculty productivity are generally focused on increasing scholarly output. The majority of the established practices are developed for tenure-track assistant professors to augment their chances for achieving tenure. Such practices include:

- *Reduced teaching load in first semester or year.* By reducing the teaching load to one or two courses per semester, junior faculty are provided more time to focus on their research.
- *Research Leaves.* Such leaves, typically for one semester or year, excuse junior faculty from all teaching responsibilities, and faculty are remunerated with full or proportional pay and benefits.
- *Opportunities for Research Collaboration.* Providing opportunities for junior faculty to collaborate with senior colleagues–either within or outside the institution–helps junior faculty establish their line of research and networks with colleagues and, theoretically, shortens the time needed to complete projects, thereby increasing productivity. This practice may be easier to accomplish in the physical, natural, and social sciences than it is in the humanities.
- *Buy Out of Teaching Time.* Some faculty members obtain research grants from outside funding sources to buy out their teaching time so they may focus primarily on their research.
- *Institutional Research Grants.* Some institutions make such awards on a competitive basis across schools and disciplines; others provide them to the departments to distribute. These grants are usually small but critical in meeting the financial needs of faculty to conduct their research.
- *Professional Development Fund.* This funding supports faculty to attend conferences to present their research, to enhance their national or international reputation, and to become involved in national professional organizations.
- *Faculty Development.* These services are broadly defined and vary from institution to institution. Some universities have faculty development centers that assist faculty–junior and senior–in their teaching and grant writing for their research; others focus exclusively on developing pedagogical skills.
- *Department Chair Responsibility.* Department chairs trained to be effective in their critical role as career guides and directors for junior faculty recognize their responsibility to ensure than junior faculty members are not overburdened with teaching and service responsibilities and have sufficient time for research.
- *Periodic Dossier Review.* Some institutions incorporate this practice before the third or fourth year pre-tenure review, typically conducted by the department chair and including written feedback. Along with the review, some institutions offer faculty workshops for tenure-track faculty to help them build their dossiers in preparation for the required reviews.
- *Third or Fourth Year Review.* This additional review is also conducted by the department chair with clear feedback, expectations, objectives, and guidelines for achieving tenure.

PROMISING PRACTICES FOR FACULTY REVITALIZATION

Some initiatives and strategies are specifically designed to help keep tenured faculty members engaged, motivated, and excited about their work as academics. A few of these practices are:

- *Post-tenure Review.* This practice can be used as a means to engage senior faculty in a reflective exercise to explore new opportunities based on their strengths and interests.
- *Accommodation of Shifts in Professional Priorities and Values.* As faculty priorities and values shift throughout their careers, department chairs and deans help senior faculty preserve their vitality. Accommodations to such shifts include affording senior faculty members the opportunity to focus on specific interests (research or teaching) while balancing and integrating a range of professional duties, as long as the department is collectively meeting its work requirements.
- *Appointment to Important Institutional Committees and Other Campus-wide Leadership Opportunities.* Leadership opportunities play a critical role in individual and institutional vitality. Valuing senior faculty members who assume leadership positions provides them greater self-esteem, engagement with colleagues, and an opportunity to develop or enhance their skills.

PROMISING PRACTICES FOR ENCOURAGING ACADEMIC CAREER COMPLETION

- *Phased Retirement Programs.* Such programs allow faculty members to continue to teach and be active participants in their department or institution part time for a fixed number of years.
- *Faculty Retirement Cohorts.* Such groups are organized with the goal of encouraging cohort members to assist each other in the preparation for and adjustment to retirement.
- *Faculty Emeritus Center.* With growing numbers of faculty retirements and healthier retirees, such centers are being developed on campuses around the country to combat the isolation many professors feel once retired. Such centers also offer retired faculty members a chance to socialize, discuss topics with fellow intellectuals, teach an occasional course, advise junior professors or students, give a lecture, and find encouragement for their scholarly pursuits.
- *Post-career Counseling.* Such programs offer opportunities for retirees to explore possible part-time options at the institution or elsewhere.
- *Use Expertise of Retired Faculty.* Retired faculty members may be actively engaged in the institution or department through giving occasional lectures or public presentations, helping with fundraising, or mentoring junior faculty members or students.

Appendix II: Other Alfred P. Sloan Foundation–Funded Projects that Focus on Enhancing Academic Career Flexibility

American Association for Higher Education (AAHE)
Project Title: Special Issue of *Change* Magazine on the Work-Family Lives of Faculty

The goal of this project is for AAHE to produce a special issue of *Change* on work-family issues faced by faculty at institutions of higher education. The issue will distinguish between the diagnoses of problems facing faculty and the identification of possibilities for alternate career paths, including part-time tenured paths. In addition, AAHE will organize a face-to-face seminar and web cast of 100 people in Washington, DC, of issues covered in the articles.

American Association of University Professors (AAUP)
Principal Investigator: John Curtis
Project Title: Access to the Profession

The goal of this project is to support the development of policies, procedures, and resources that will enable tenure-track faculty in their probationary period to simultaneously pursue tenure and participate fully in the lives of their family members. Other goals include to help initiate a new discussion on the status of contingent faculty, to explore models of academic work that preserve academic freedom for part-time faculty, and to investigate limitations on tenured positions and the process by which those positions are allocated.

American Sociological Association
Principal Investigators: Roberta Spalter-Roth, Ivy Kennelly, and William Erskine
Project Title: A Study of the Effects of Resource Allocation and Family Formation Strategies on Achieving Tenure by Parents

In this recently completed project, the investigators found that using work-life policies as a form of resources increases the probability that academic mothers will simultaneously work fewer than 50 hours a per week and publish more than mothers who do not have or do not use these policies. The investigators have published a research brief, *When Is the Best Time to Have a Baby? Institutional Resources and Family Strategies Among Early Career Sociologists*.

American Women in Science (AWIS)
Principal Investigator: Catherine Didion
Project Title: A Literature Review of Gender Differences Among Non-Tenured Faculty in Science and Engineering

The goals of this project are to review literature on the status of non–tenure-track faculty in science and engineering; collect and review institutional and national data related to tenure status, gender, and discipline; identify gender differences among non–tenure-track faculty in science and engineering; review current trends and gaps in research; and finally, disseminate literature and resources from the report on the AWIS web site.

Brandeis University
Principal Investigator: Linda Pololi
Project Title: Research on Barriers and Opportunities to Women's Advancement in Academic Medical Careers

The goal of this project is to examine the possible reasons, including family demands that limit women's advancement in academic medical careers. The principal investigator and her colleagues are assembling a National Advisory Board of Medical School Deans, teaching hospital chief executive officers, and presidents of influential professional organizations. Results will be disseminated to help develop a more aggressive examination of what needs to be changed to remedy women's lack of advancement in academic medicine.

College of William and Mary
Principal Investigator: David Leslie
Project Title: Phased Retirement

The goal of this project is to translate into broader suggestions for policy and practice the experiences of institutions and individuals involved in retirement plans that provide incentives for faculty to choose flexible–often part-time–work. Phased retirement plans are the specific focus.

Pennsylvania State University
Principal Investigators: Robert Drago and Carol Colbeck
Project Title: The Mapping Project: Exploring the Terrain of U.S. Colleges and Universities for Faculty and Families

In this recently completed project, the investigators extended the theory of bias avoidance, finding three categories thereof: *bias acceptance*–the making and meeting of family commitments with resulting career penalties assumed or planned for; *daddy privilege*–men are lauded for intrusion of family on work commitments, women would experience bias against caregiving for similar intrusions; and *bias resistance*–actions that either directly or indirectly challenge bias against caregiving.

Purdue University
Principal Investigators: Judith Gappa, Ann Rice, and Andrea Trice
Project Title: Alternative Faculty Careers

The goal of this project is for the investigators to publish a book in which the authors will examine what constitutes meaningful careers for the changing academic workforce that is composed of older faculty and more women, and to identify alternative career paths that are more relevant than the paths of the current tenure-track system.

University of California, Berkeley
Principal Investigators: Mary Ann Mason, Angelica Stacy, Marc Goulden, and Carol Hoffman
Project Title: Research on Family Formation and Professional Advancement in Academia

The goals of this project are to determine which women are most disadvantaged in obtaining tenure-track positions in the bench sciences, the humanities, and the social sciences at four-year colleges and universities. Can publication history explain the deleterious effects of family formation on women's academic careers? Can childbirth account for the higher rate at which women take non-tenure instructor or research staff positions?

University of Kansas
Principal Investigators: Lisa Wolf-Wendell and Kelly Ward
Project Title: Research on the Institutional Barriers and Facilitators to Family-Friendly Policies for Faculty Members

The goal of this project is to influence colleges and universities to increase their adoption and use of work and family policies. The investigators will identify the conditions within campus cultures that surround the creation, implementation and use of campus work-family policies.

University of Michigan, Center for the Education of Women
Principal Investigators: Carol Hollenshead, Jean Waltman, Jeanne Miller, Louise August, and Beth Sullivan
Project Title: The Dual Ladder in Higher Education–Research, Resources, and the Academic Workforce Dual Ladder Clearinghouse

The goal of this project is to examine how the "dual ladder" for faculty in higher education affects non–tenure-track faculty. This project will support efforts to improve the academic workplace, by conducting research on institutional employment policies and work-life conditions for non–tenure-track employees; establishing a central clearinghouse of research, policies, and practices; and developing specialized print and other resources for use by key academic audiences.

University of Virginia
Principal Investigators: Steven Rhoads and Charmaine Yoest
Project Title: The Family, Gender and Tenure Project

The goal of this project is to assess the effect of parental leave and stopped tenure clock policies on "leveling the playing field" for female professors. The broader objective is to identify the policies, practices, and procedures that are most helpful in promoting achievement among female professionals.

University of Washington ADVANCE Center for Institutional Change
Principal Investigators: Eve Riskin, Kate Quinn, Sheila Edwards Lange, and Joyce Yen
Project Title: Part-Time Faculty Careers at the University of Washington

In this recently completed project, the authors found that few faculty members utilized the progressive part-time option available to them, but that those who did were pleased with the flexibility a part-time appointment provided. These faculty acknowledged the chilly climate for the use of family-friendly policies. Salary reductions were seen as disincentives, and these policies were not widely known or implemented. Their findings can be found in a published report, *Exploring Part-Time Tenure Track Policy at the University of Washington*.

University of Wisconsin System
Principal Investigators: Bernice Durand and Louise Root-Robbins
Project Title: Academic Career Advancement

The goal of this project is to reduce the limitations and restrictions of academic career paths, so that individuals who choose to work in the academy can have more flexibility and more options than what currently exists to achieve a satisfying and successful career that can be accomplished without sacrificing a fulfilling personal life. The objectives include collecting and analyzing employee data with the intention of raising awareness of current trends and employment practices for faculty and instructional academic staff (both tenure and non-tenure line); identifying those policies and practices that can be improved and applied more consistently; and designing processes to efficiently and effectively bring about constructive, sustainable changes.

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